



CERTIFICATION AND FINANCING PROPOSAL

SEPV IMPERIAL SOLAR PROJECT DIXIELAND, CALIFORNIA

Resubmission: September 13, 2016

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EXECUTIVE SUMMARY

SEPV IMPERIAL SOLAR PROJECT DIXIELAND, CALIFORNIA

The original certification and financing proposal for this project was submitted to the Board on January 14, 2016, and was subsequently approved on March 7, 2016, through Board Resolution BR 2016-1. Following Board approval, the project company, SEPV Imperial, LLC, was acquired by AES Distributed Energy (AES), one of the largest independent power producers in the world. AES intends to continue with the project and NADB financing as approved by the Board. However, in order to facilitate financing, minimize transaction costs and maximize the tax equity benefits, the financing structure has been changed from a single lender transaction to a portfolio facility that will cover additional small projects for up to 40 megawatts (the "Portfolio"). Under this portfolio facility, NADB financing would be provided for the certified project under the same general terms and conditions as originally approved by the Board.

Project: As previously approved by the Board, the project consists of the design, construction and operation of a 5-MW_{AC} solar facility located in Dixieland, CA (the "SEPV Project"), which includes two solar plants identified as SEPV Dixieland West (3.0 MW_{AC}) and SEPV Dixieland East (2.0 MW_{AC}). The electricity generated by the SEPV Project will be purchased by Imperial Irrigation District (IID or the "Utility") pursuant to two long-term power purchase agreements (the "PPAs") signed with the project company.

Project Objective: The SEPV Project will increase installed capacity of renewable energy resources, reducing the demand on traditional fossil fuel-based energy production and contributing to the displacement of greenhouse gas emissions and other pollutants from power generation by fossil fuels.

Expected Project Outcomes: The anticipated environmental outcomes resulting from the installation of 5.0 MW_{AC} of new renewable energy generation capacity are:

- a) Approximately 15.1 gigawatt-hours (GWh) during the first year of operation;¹ and
- b) An expected displacement of more than 4,319 metric tons/year of carbon dioxide and 7 metric tons/year of nitrogen oxides.²

¹ BECC estimate based on the Photovoltaic System (PVSyst) simulation report for a 3.0 MW_{AC} solar facility, extrapolated for a 5.0-MW_{AC} facility. The independent engineer's report is in progress.

Sponsor: AES Distributed Energy (AES).

Borrower: The special-purpose vehicle (SPV) created by AES Distributed Energy for the Portfolio, with NADB funds allocated to the Project company, SEPV Imperial, LLC (SEPV).

NADB Loan Amount: Up to US\$11.0 million, as originally approved.

² Sulfur dioxide (SO₂) emission reductions are not calculated for the Project. According to the U.S. Energy Information Administration and the California energy generation portfolio, the SO₂ emission factor is reported as nearly zero.

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SEPV IMPERIAL SOLAR PROJECT DIXIELAND, CALIFORNIA

1. ELIGIBILITY

Project Type

The Project falls in the category of clean and efficient energy.

Project Location

The Project is located 10.3 miles from the U.S.-Mexico border in Dixieland, California, in an unincorporated area of Imperial County.

Project Sponsor and Legal Authority

The original project sponsor created a special-purpose company called SEPV Imperial, LLC (SEPV or the "Project Company"), a Delaware-based, limited-liability company that was incorporated on September 27, 2010. In July 2016, SEPV was acquired by the independent private power company AES Distributed Energy (AES or the "Sponsor"), which plans to include the Project in a portfolio facility with several other small projects (the "Portfolio") and will create a special-purpose vehicle (SPV) to manage the Portfolio and contract the necessary financing (the "Borrower"). SEPV will be owned by the Borrower.

2. CERTIFICATION CRITERIA

2.1. TECHNICAL CRITERIA

2.1.1. Project Description

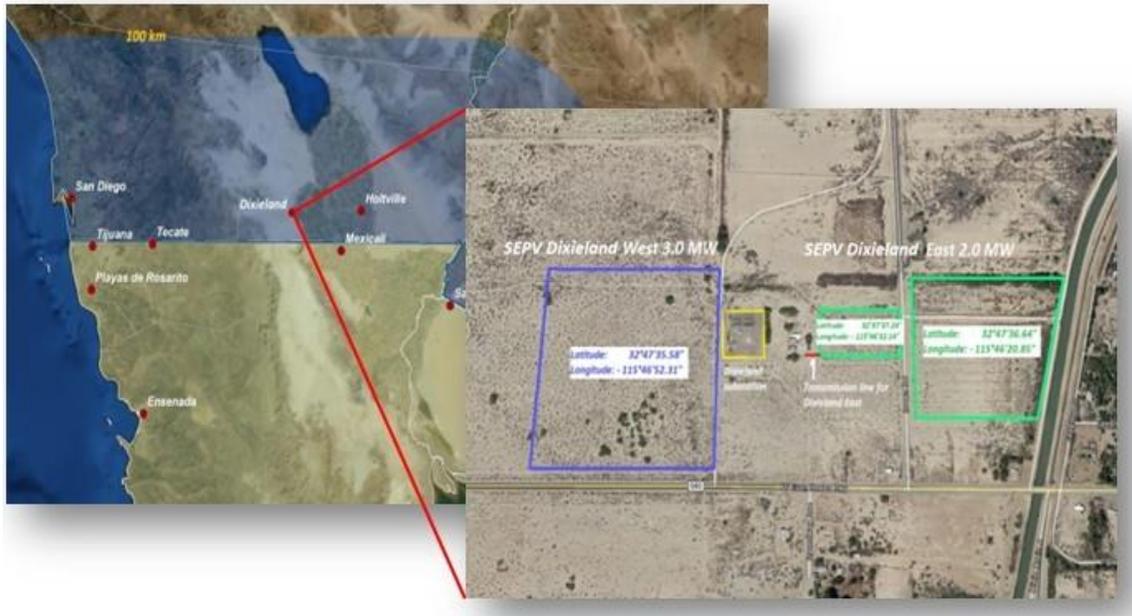
There is no change to the Project as previously certified by the Board. The project size, location, technology and expected environmental benefits are exactly the same.

Geographic Location

The Project will be located in the unincorporated area of Dixieland in Imperial County, California. SEPV Dixieland West will be developed on a 29-acre site, located 32°47'35.58" north and -115°46'52.31" west. SEPV Dixieland East will be developed on approximately 24-acres located 32°47'37.24" north and -115°46'32.14" west. The sites are surrounded by undeveloped land and

are located approximately five miles west of the community of Seeley, CA. Figure 1, below, shows the approximate geographical location of the Project.

Figure 1
PROJECT VICINITY MAP



General Community Profile

The Project is expected to benefit Imperial County directly by generating electricity equivalent to the annual consumption of approximately 1,882 households and by creating employment opportunities and additional income from taxes during the construction and operation of the Project.³ The service area of Imperial Irrigation District (IID or the "Utility") covers 6,471 square miles, including all of Imperial County, along with parts of Riverside and San Diego counties.

According to the U.S. Census Bureau, in 2014, Imperial County had an estimated population of 179,091 in approximately 48,099 households, which represents 0.46% of the state population. The estimated median household income (MHI) for Imperial County was US\$41,807. Since the MHI for the state of California is over US\$61,000, these figures serve as a strong indicator of the existing economic distress in Imperial County.⁴

³ Estimate based on 2,346.0 kWh/year of electricity consumption per capita in California in 2011 from the U.S. Department of Energy (<http://apps1.eere.energy.gov/states/residential.cfm/state=CA>) and 3.42 persons per household in Imperial County as indicated by the U.S. Census Bureau (<http://quickfacts.census.gov/qfd/states/06/06025.html>).

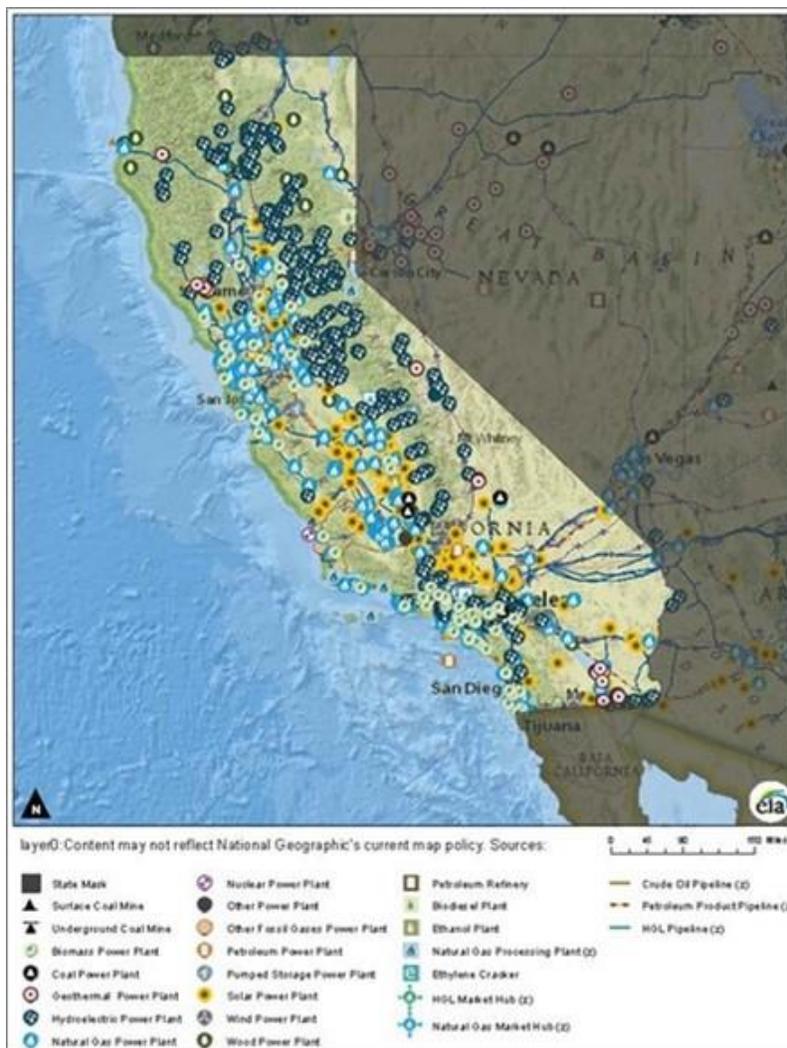
⁴ Source: U.S. Census Bureau, Quick Facts – Imperial County, 2014.

According to the U.S. Department of Labor, in September 2015, the unemployment rate in Imperial County was 21.6%, well above the national average of 5.1%.⁵ The Project is expected to generate approximately 60 jobs during construction and three part-time jobs during operation.

Local Energy Profile

The U.S. Department of Energy (DOE), through the Energy Information Administration (EIA), provides a state-by-state reference for information and data covering energy production and demand. Figure 2 from the EIA website shows the location of California’s power plants, its renewable energy potential and energy sources.⁶

**Figure 2
 ENERGY SOURCES IN CALIFORNIA**



⁵ Source: U.S. Department of Labor, Local Area Unemployment Statistics Map, 2015.

⁶ Source: U.S. Department of Energy, Energy Information Administration, State Energy Profiles – California, 2014.

In 2002, California's Renewables Portfolio Standard (RPS) was established in Senate Bill 1078. In November 2008, the California Energy Policy Report's goal of achieving 33% generation from renewable sources by 2020 was confirmed by Governor Arnold Schwarzenegger in Executive Order S-14-08. In 2009, the California Air Resources Board (CARB) under the authority delegated through Assembly Bill 32, was directed by Executive Order S-21-09 to enact regulations to achieve the goal of 33% renewables by 2020.⁷

In order to achieve the 33% goal by 2020, Senate Bill X1-2 was signed by Governor Edmund Brown, Jr., in April 2011. Under this new RPS, all electricity retailers in the state, including publicly-owned utilities (POUs), investor-owned utilities (IOUs), electricity service providers and community aggregators, needed to adopt the new goals of 20% of retail sales from renewables by the end of 2013, 25% by the end of 2016 and 33% by the end of 2020.⁸ Senate Bill 350 was signed on October 7, 2015, and requires that the target of electricity generation from renewable resources be increased from 33% by 2020 to 50% by 2030.⁹ In 2014, 22.5% of the electricity generated in California came from renewable sources, including geothermal, biomass, small hydroelectric, wind and solar. More details are presented in section 2.2.2. Environmental Effects/Impacts.

The electricity generated by the Project will be sold to IID, which is the sixth largest public power utility in the state and manages more than 1,100 MW of power plant capacity. For over 100 years, IID has been providing water and energy services to all of Imperial County, as well as parts of Riverside and San Diego counties. With an energy service area spanning 6,471 square miles, IID currently serves over 150,000 electric customers.¹⁰ Figure 3 shows IID's service area.

Figure 3
IID SERVICE AREA



⁷ Source: California Energy Commission, <http://www.energy.ca.gov/portfolio/>.

⁸ Source: Imperial Irrigation District, <http://www.iid.com/energy/renewable-energy>.

⁹ Source: California Legislative Information, https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB350.

¹⁰ Source: Imperial Irrigation District, <http://www.iid.com/energy/about-iid-energy>.

IID has established an Integrated Resource Plan to add renewable sources to its portfolio in order to meet the state’s greenhouse gas and renewable mandates. The plan provides direction and includes recommendations for expanding IID’s transmission system, power purchases and investment in generation resources. In 2009, IID took several steps to increase its renewable energy mix, including the approval of power purchase agreements for biomass and solar energy. In 2014, IID’s generation capacity was comprised of a variety of sources, including natural gas, accounting for 60.7% (588 MW), followed by coal with 10.6% (102 MW), hydroelectric with 6.7% (65 MW), oil with 4.3% (42 MW) and nuclear with 1.6% (15 MW). The remaining 16.1% (156 MW) of IID’s generation portfolio comes from external purchases, of which solar represents 6% (58 MW) and biomass 4.7% (45 MW). Table 1 shows the energy mix for IID compared to California as a whole:

**Table 1
 ENERGY CAPACITY PORTFOLIO COMPARISON**

Energy Source	IID ⁱ (2014)	California ⁱⁱ (2014)
Natural gas	60.7%	58.6%
Large hydroelectric	3.4%	15.7%
Small hydroelectric	3.3%	2.1%
Oil	4.3%	-
Geothermal	-	3.4%
Biomass ⁱⁱⁱ	4.7%	1.6%
Solar ⁱⁱⁱ	6.0%	7.5%
Wind	-	7.5%
Nuclear	1.6%	2.9%
Coal	10.6%	0.2%
Other ^{iv}	5.4%	0.5%
Total	100.0%	100.0%

ⁱ Source: California Energy Commission Energy Almanac, Utility Capacity Supply Plans from 2015.

ⁱⁱ Source: California Energy Commission Energy Almanac, Electric Generation Capacity & Energy

ⁱⁱⁱ For IID, its purchased power under renewable energy contracts.

^{iv} For IID, other purchased power includes Coral/Shell and distributed generation.

IID is a member of the Western Electricity Coordinating Council (WECC), the regional entity responsible for coordinating and promoting system reliability in the Western Interconnection. Geographically, WECC is the largest and most diverse of the eight regional entities that have delegation agreements with the North American Electric Reliability Corporation (NERC), and provides reliable power service through 127,700 miles of transmission lines across nearly 1.8 million square miles.¹¹

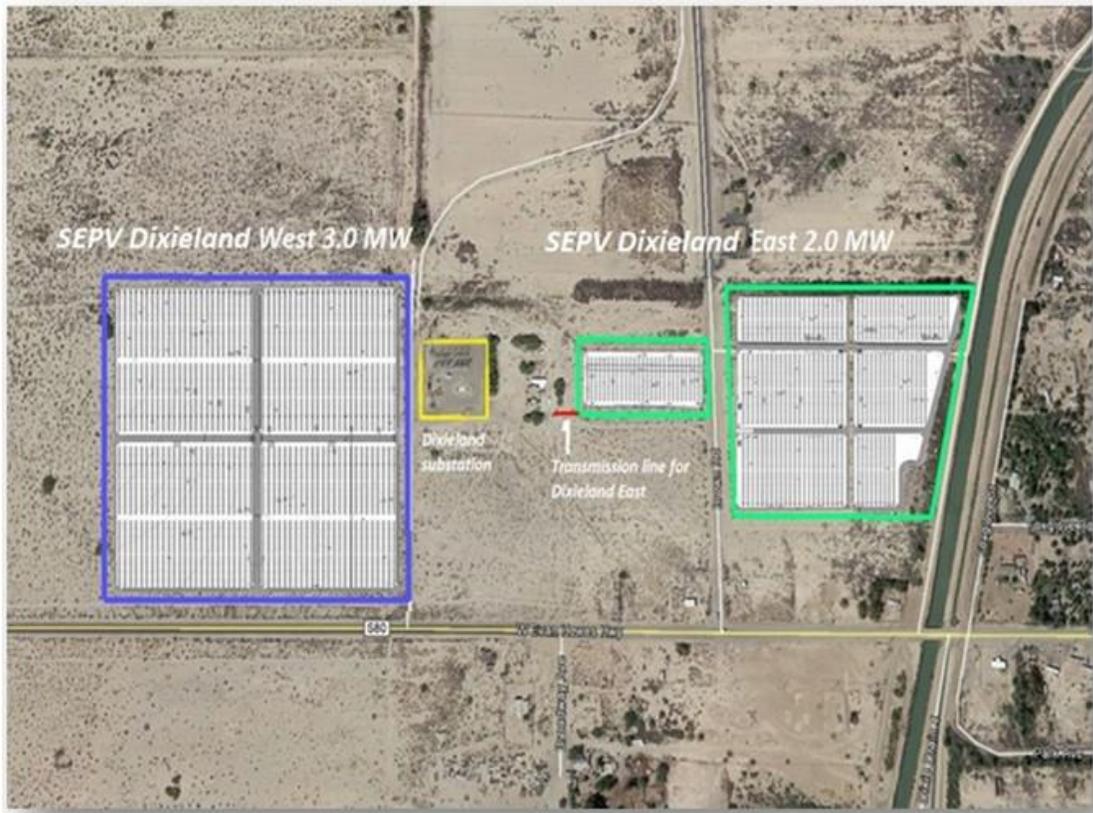
¹¹ Source: Western Electricity Coordinating Council, <https://www.wecc.biz/Reliability/2015%20SOTI%20Final.pdf>.

Project Scope and Design

The scope of the Project is to design, build, and operate two solar facilities: SEPV Dixieland West with a capacity of 3.0 MW_{AC} and SEPV Dixieland East with a capacity of 2.0 MW_{AC}. IID will purchase the electricity produced by each solar facility pursuant to two 20-year power purchase agreements (PPAs). The Project will be constructed on land covering a total of 53-acres (see Figure 4).

SEPV Dixieland West will be interconnected to the IID distribution system at an existing IID 12 kV distribution line that runs north-south along the eastern edge of the SEPV Dixieland West site. SEPV Dixieland East will be interconnected to the IID distribution system at an existing IID 12 kV distribution line that runs along the western edge of the SEPV Dixieland East site.

**Figure 4
PROJECT SITE LAYOUT**



The Project is expected to begin construction in October 2016, with commercial operations beginning in December 2016. Table 2 presents the status of key tasks of the Project.

Table 2
PROJECT MILESTONES

Key Milestones	Status
Project site purchase and sale agreements	Completed
PPAs with IID	Completed
Conditional Use Permits for SEPV Dixieland West and SEPV Dixieland East (land use and access)	Completed
Environmental Impact Report/Conditional Use Permit (CUP) authorization by Imperial County	Completed
Interconnection agreement with IID	Completed
Engineering, procurement and construction (EPC) contract with Blue Oak Energy	In progress (expected by September 2016)
Independent engineer report	Pending
Commercial Operation Date (COD)	December 2016

Construction permits will be obtained prior to construction.

NADB's procurement policies require that private-sector borrowers use appropriate procurement methods to ensure a sound selection of goods, works and services at fair market prices and that their capital investments are made in a cost-effective manner. As part of its due diligence process, NADB will review compliance with this policy.

2.1.2. Technical Feasibility

Selected Technology

The technology was evaluated from various suppliers and the selection of the equipment best suited to the characteristics of the Project sites was made in order to obtain the best performance (long-term energy output) based on the solar resource. The process for technology evaluation considered elements such as technical performance, commercial offering and warranties. Additionally, the Project was evaluated for viability based on the use of bankable technologies. The independent engineer will confirm the suitability of the technology and expected performance. Below is a description of the main components of the Project:

- Modules: 325-watt crystalline photovoltaic modules will be installed and mounted on single-axis tracking arrays. The parallel arrays will be separated and spaced apart to minimize inter-row shading by the sun.
- Inverters: The inverters selected for the Project will maximize energy production and will be rated at 1,872 kW of nominal AC output and an operation efficiency of 98.6%.

Interconnection: SEPV Dixieland West will be interconnected to the IID distribution system at an existing IID 12kV distribution line that runs north-south along the eastern side of the SEPV Dixieland West. SEPV Dixieland East will be interconnected to the IID

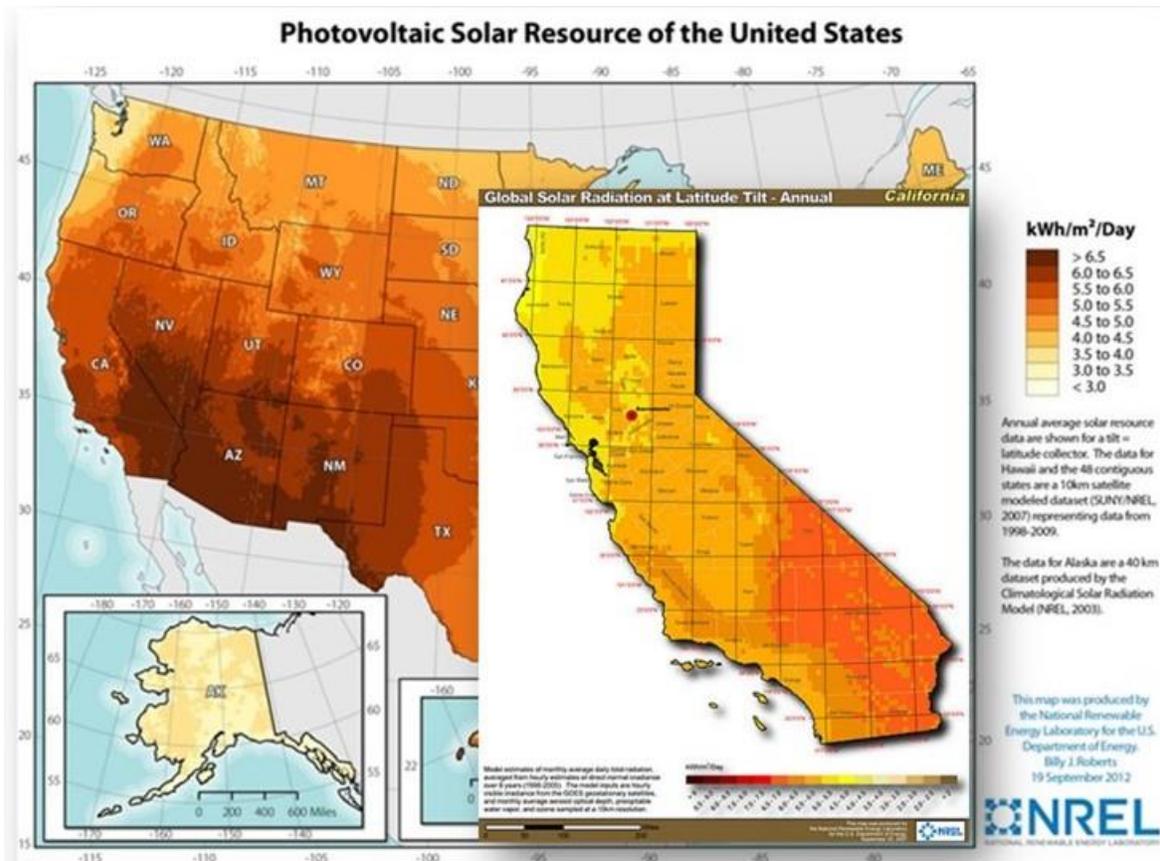
distribution system at an existing IID 12 kV distribution line that runs along the western edge of the SEPV Dixieland East site.

- **Monitoring and control system:** A SCADA system will be used to monitor remotely, operate, track and document the performance of the PV system relative to its predicted output.

Solar Resource Assessment

The Project is located in Dixieland, California, which boasts some of the best solar resources in the United States. According to the National Renewable Energy Laboratory (NREL), the photovoltaic solar resource in Dixieland ranges from 6 to 6.5 kWh/m²/day (see Figure 5).

Figure 5



The Project's energy production was calculated using Photovoltaic System (PVsyst) software, published by the University of Geneva, Switzerland. A 3.0-MW_{AC} solar plant simulation was developed. Extrapolating data from this calculation, it is estimated that the 5.0-MW_{AC} Project will generate approximately 15.1 gigawatt-hours (GWh) of electricity in the first year of

operation.¹² Performance losses due to current conversion from direct to alternating, dust and inverter losses were taken into consideration. The energy generation estimate will be vetted by an independent engineer.

2.1.3. Land Acquisition and Right-of-way Requirements

The Project sites encompass a total area of approximately 53 acre located in an unincorporated community of Imperial County known as Dixieland. The undeveloped land for SEPV Dixieland West and SEPV Dixieland East was secured through two distinct purchase agreements executed in August 2014 and February 2015, respectively.

The Project requires two separate Conditional Use Permits (CUP) issued by Imperial County to carry out construction and operation activities. The CUP applications were submitted to Imperial County Planning and Development Services (ICPDS) in February 2015. As part of CUP approval, the County reviewed the Project information provided and initiated the environmental clearance process prior to making a final decision. Both applications and the Environmental Impact Report (EIR) were approved on January 11, 2016 as follows:

- Conditional Use Permit for SEPV Dixieland West, approved by the Imperial County Board of Supervisors on January 11, 2016; and
- Conditional Use Permit for SEPV Dixieland East, approved by the Imperial County Board of Supervisors on January 11, 2016.

Additional permits will be required for the Project:

- Building permit;
- Grading and clearing permits;
- Encroachment permit;
- General construction storm water permit;
- Approval of the proposed fire system by the Imperial County Fire Department; and
- Storm water pollution prevention plan notice of intent.

All these permits will be obtained prior to or during the construction process in accordance with the regulations of Imperial County. Obtaining the permits will be a condition precedent for disbursements in the loan agreement.

¹² BECC estimation based on the PVSyst simulation report for a 3.0-MW_{AC} solar facility, with data extrapolated for a 5.0 MW_{AC} facility. The independent engineer report is in progress.

2.1.4. Management and Operations

With more than 36 GW in energy projects in 18 countries, including 8 GW of renewable energy, the Project Sponsor has become one of the biggest independent power producers in the world. The Sponsor selected Blue Oak Energy as the Engineer, Procurement and Construction (EPC) contractor, an experienced company with a track record of more than 1 GW_{AC} of installed commercial, public-sector and utility-scale solar facilities in the United States. Blue Oak Energy has served as the EPC contractor for eight solar projects in California, resulting in the successful installation of more than 135 MW_{AC} of renewable energy generation capacity.

The Sponsor will execute a comprehensive Operations and Maintenance (O&M) agreement with Blue Oak Energy prior to financial closing. The O&M contractor will provide services in accordance with the O&M agreement, which shall include the following:

- Providing all materials and services necessary for solar facility maintenance;
- Performing routine and non-routine maintenance on the solar facility during and after the EPC warranty period;
- Washing solar panels periodically;
- Managing onsite vegetation by typical landscape maintenance techniques (if applicable);
- Monitoring the operations of the Project via the computer monitoring system;
- Complying with all regulatory obligations;
- Developing operation and safety plans; and
- Maintaining all Project information and facility data, including providing reports to their stakeholders.

2.2. ENVIRONMENTAL CRITERIA

2.2.1. Compliance with Applicable Environmental Laws and Regulations

Applicable Laws and Regulations

The Project will be constructed in California and, therefore, the formal environmental clearance process for the Project must comply with the California Environmental Quality Act (CEQA).¹³ The purpose of CEQA is to inform governmental decision-makers and the general public about potentially significant environmental effects of proposed activities; require changes in projects through the use of alternatives or mitigation measures, when feasible; and disclose to the public the reasons why a project was approved, if significant environmental effects result from the project's implementation. CEQA is applicable to projects undertaken, funded or requiring the issuance of a permit by a public agency.

¹³ CEQA was enacted in 1970 and incorporated into Public Resources Code §§21000-21177.

Environmental Studies and Compliance Activities

The development of any project that is not exempt from the CEQA must include the preparation of an "Initial Study" by a lead agency to determine whether the Project may have a potentially significant effect on the environment. If significant effects are detected, the lead agency must prepare an EIR. The analysis in the EIR is intended to provide full disclosure of the potential environmental impact of a project in accordance with CEQA requirements. When no substantial evidence is found for such effects or those effects can be reduced to a level of insignificance through project revisions, a Mitigated Negative Declaration (MND) can be adopted.

In February 2015, the CUP applications were submitted to Imperial County Planning and Development Services (ICPDS), which as the lead agency is responsible for approving the necessary environmental clearances and analyses for any project in the County. The ICPDS reviewed the Project information and in May 2015 submitted to the County's Environmental Evaluation Committee the Initial Study, environmental checklist form and notice of preparation, which determined that the proposed Project will result in potentially significant environmental impacts and therefore an EIR was deemed the appropriate document to provide the necessary environmental evaluation and clearance for the Project. On May 15, 2015, the ICPDS distributed a Notice of Preparation (NOP) of the EIR to state and federal agencies, other public agencies, stakeholders, organizations and individuals in order to provide a 30-day comment period on the scope of the EIR for the Project. The Sponsor prepared a draft EIR for the Project, and the County issued a Notice of Availability of the draft EIR for a public review period from September 22, 2015 through November 11, 2015. The final EIR was submitted for approval in mid-December 2015, and the County's Board of Supervisors issued its approval on January 11, 2016. A Notice of Determination was also filed on January 11, 2016, and concluded that the Project will not have a significant effect on the environment.

As part of the draft EIR, the following environmental reports were prepared to evaluate the potential impacts and mitigation requirements of the Project:

- *Air Quality/Greenhouse Gas Report*. The purpose of this study was to determine potential air quality and climate change impacts that might be created during the construction and operation of the Project. The study concluded that the expected impacts due to construction activities will be less than significant, and no health risks are anticipated.
- *Biological Habitat Assessment*. The purpose of the study was to perform a habitat assessment to identify sensitive biological resources that may occur in the immediate vicinity of the Project sites and analyze potential impacts. The literature review revealed that several sensitive species, such as the Colorado Valley woodrat (*Neotoma albigula venusta*), are known to occur within a ten-mile radius. Focused surveys on burrowing owls (*Athene cunicularia*) and flat-tailed horned lizards (*Phrynosoma mcallii*) were also conducted, and a preconstruction burrowing-owl-take-avoidance survey was recommended to ensure no burrowing owls have moved onto the Project sites. In order to comply with the Migratory Bird Treaty Act, a 50-meter buffer will be set for detected nesting birds and a 150-meter buffer will be set if a red-tail hawk (*Buteo jamaicensis*) nest is detected. Finally, it was recommended that a biological monitor be present

during the removal of the mesquite trees in the SEPV Dixieland West site in order to remove any sensitive species, such as the Colorado Valley woodrat, that might not have been detected during the surveys. Mesquite trees were not detected in the SEPV Dixieland East site. The assessment concluded that no species listed as threatened or endangered under the Federal Endangered Species Act or California Endangered Species Act are likely to occur within the Project area.

- *Cultural Resources Assessment.* A search of cultural resource records, a pedestrian field survey, archaeological test excavations, Native American consultation and an overview of vertebrate paleontological resources have been completed for the Project sites. The records search revealed that 20 previous cultural resource studies were conducted within or adjacent to the Project sites, and seven cultural resources have been previously recorded within the site boundaries. The Sponsor also consulted directly with relevant agencies, such as the Native American Heritage Commission (NAHC), to determine further necessary activities. The consultation with the NAHC did not result in the identification of cultural resources in the immediate Project sites. More details on mitigation measures are presented below in the section, *Mitigation of Risks*. The archaeological test excavations determined that the artifacts recovered are not sensitive.
- *Construction Noise Analysis.* A study was completed to determine the noise impacts associated with the development of the Project. The applicable regulatory noise limits for the Project include those considered in the Imperial County Municipal Code. The noise levels due to operation and maintenance activities are anticipated to be negligible and below the limits.
- *Phase I Environmental Site Assessment (ESA).* The purpose of the Phase I ESA was to assess the presence or likely presence of an existing, historical or threatened release of any hazardous substances or petroleum products into structures, soil and/or groundwater beneath the Project sites. The assessment revealed no evidence of any recognized environmental conditions (REC) or historical RECs in connection with the sites.¹⁴

A Jurisdictional Delineation Report was also developed to determine potential impacts to jurisdictional waters within the SEPV Dixieland West and SEPV Dixieland East sites. The survey concluded that the SEPV Dixieland West site showed no jurisdictional waters of the U.S. (federal government), and identified 0.739 acres of potential state jurisdictional waters. No U.S. or state jurisdictional waters were identified in the SEPV Dixieland East site.

¹⁴ The American Society for Testing and Materials (ASTM) defines *recognized environmental conditions* as the “presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.”

Pending Environmental Tasks and Authorizations

There are no pending environmental authorizations.

Compliance Documentation

The following environmental compliance documentation is available for the Project:

- Initial Study;
- Final Environmental Impact Report approved by the Imperial County Board of Supervisors on January 11, 2016; and
- Notice of Determination SCH# 2015101043.

2.2.2. Environmental Effects/Impacts

There is a need for affordable and environmentally beneficial alternatives to conventional fossil fuel-derived energy resources. Renewable energy projects create an opportunity to generate electricity without the atmospheric emissions generated by fossil fuel-based plants. Sunlight is a source of renewable energy, which means it can be produced without the depletion of natural resources. It is a clean form of renewable energy and is currently used in many developed and developing nations to meet their demand for electricity. Solar power does not produce waste byproducts that require disposal or gas emissions that contribute to air pollution. It does not pollute or consume water for electricity production. Water may be used in small amounts for the cleaning of panels from time to time. Solar energy projects provide an opportunity to displace greenhouse gases (GHG) and other pollutants produced by traditional fossil fuel-based energy generation, while providing local residents with a safe and reliable energy alternative.

Existing Conditions and Project Impact – Environment

Historically, the United States has depended to a great extent on fossil fuels for the generation of energy. These conventional sources of energy adversely affect the environment due to the harmful emissions produced in their generation processes, including GHG and other pollutants, such as sulfur dioxide (SO₂) and nitrogen oxides (NO_x).

Current annual electricity generation in California relies on a mix of energy technologies. The electricity generated from natural gas accounts for 61.3%, nuclear 8.6%, hydroelectric 8.3%, wind 6.5%, geothermal 6.1%, solar 5.3%, biomass 3.4% and coal 0.5%. The latest information presented by the Energy Information Administration indicates that based on the net power generation of nearly 200,000 GWh in California in 2013, 57.3 million metric tons of carbon dioxide (CO₂), 1,913 metric tons of SO₂ and 87,853 metric tons of NO_x were emitted.¹⁵

¹⁵ Source: U.S. Energy Information Administration.

Table 3
2014 CALIFORNIA ELECTRIC POWER INDUSTRY GENERATION

Energy Source	Total Generation (GWh)*
Natural gas	121,907
Large hydroelectric	14,052
Small hydroelectric	2,426
Geothermal	12,183
Biomass	6,672
Solar	10,557
Wind	12,997
Nuclear	17,027
Coal	988
Other	62
Total	198,871

* Source: California Energy Commission Energy Almanac, Electric Generation Capacity & Energy.

The Project will help reduce the demand for fossil fuel-fired electricity, and since solar power generation has zero fuel cost, zero emissions and zero water use, it will provide an opportunity to displace harmful emissions. The anticipated environmental outcomes from the installation of 5.0 MW_{AC} of new renewable energy generation capacity (or approximately 15.1 GWh of electricity in year 1) include an expected displacement of more than 4,319 metric tons/year of CO₂ and approximately 7 metric tons/year of NO_x.

Mitigation of Risks

As previously determined by the ICPDS, various aspects of the Project have been reviewed, and the studies concluded that the Project will not have any significant effect on the environment. Although some potential impacts might be expected, they will be managed using the following mitigation measures contained in the Draft EIR:

- Air Quality. In order to mitigate negative effects to the environment, the Sponsor will implement the following measures:
 - Use catalyst-equipped diesel construction equipment, including all off-road and portable diesel-powered equipment.
 - Minimize idling time, either by shutting equipment off when not in use or reducing idling time to a maximum of 5 minutes.
 - Stabilize disturbed areas and unpaved roads using water, chemical stabilizers, dust suppressants, tarps or vegetative ground cover, where applicable.
 - Transportation of cover material will be completely covered. The cargo compartment of all trucks will be cleaned and/or washed at delivery site after removal of bulk material.
 - The speed for all construction vehicles will not exceed 15 mph on any unpaved surface at the construction site.

- Replace ground cover in disturbed areas as quickly as possible.
- Water exposed soil with adequate frequency to maintain its moisture, including a minimum of three wettings per day during grading activities.
- Submit and obtain approval from the County for a Construction Dust Control Plan and an Operations Dust Control Plan.
- Biological resources. The Sponsor will implement the following measures to mitigate potential impacts to the burrowing owl during construction activities:
 - Within 30 days prior to initiation of construction, pre-construction clearance surveys for the burrowing owl will be conducted by qualified and approved biologists to determine the presence or absence of the burrowing owl within the Project sites.
 - If active burrows are present within the Project sites, passive relocation methods will be used by the biological monitors to move the owls out of the impact zone.
 - In cooperation with the California Department of Fish and Game, an approved biologist will prepare a Burrowing Owl Mitigation and Monitoring Plan.
 - In order to reduce the potential indirect impact to migratory birds, bats and raptors during construction, operation and maintenance activities, an Avian Bat Protection Plan will be prepared.
- Cultural Resources. The following mitigation measures for cultural resources will be implemented:
 - If previously unidentified, unique archaeological resources are found during construction or operation activities, archaeological monitors will be authorized to temporarily divert construction works within 100 feet of the area of discovery until their significance and appropriate mitigation measures are determined by a qualified archaeologist.
 - In the event previously unidentified archaeological materials are discovered, the contractor shall immediately cease all work activities within approximately 100 feet of the discovery. The contractor must comply with the standards for a qualified archaeologist established by the U.S. Secretary of the Interior, to evaluate the significance of the materials prior to resuming any construction-related activities in the vicinity of the find.
 - A County-approved qualified paleontological monitor will be present during excavation activities associated with the Project construction. The monitor is empowered to halt or divert equipment temporarily to allow removal of abundant or large specimens. Recovered specimens will be prepared for identification and permanent preservation. A report of findings with an appended itemized inventory of specimens will be prepared.
 - Any human remains or related resources discovered on the Project sites will be treated in accordance with federal, state and local regulations and guidelines for

disclosure, recovery, relocation and preservation, as appropriate. If human remains are found to be of Native American origin, the NAHC will be asked to determine the most likely descendants who are to be notified or, if unidentifiable, to establish the procedures for burial.

- Greenhouse gas emissions. In order to minimize the emission of greenhouse gases, the Sponsor will:
 - Use electricity from power poles rather than temporary diesel power generators.
 - Use construction equipment with EPA Tier 2 or better engine technology.
 - Keep construction vehicles well maintained to prevent leaks and minimize emissions.
- Hydrology/water quality. The Sponsor will prepare a Storm Water Pollution Prevention Plan (SWPPP) and will be responsible for obtaining a storm water permit for general construction activities. The SWPPP will identify specific actions and best management practices relating to the prevention of storm water pollution and will include:
 - Soil stabilization and erosion control practices, such as erosion control blankets and mulching.
 - Temporary and post-construction off-site runoff controls.
 - Monitoring protocols for discharges and receiving waters, with emphasis on dissolved oxygen, floating material, oil and grease, pH and turbidity.
 - Waste management, handling and disposal control practices.
- Noise. In order to mitigate noise levels during the construction of the Project, the Sponsor will consider the following:
 - Construction and decommissioning activities will be limited to hours between 7 AM and 7 PM, Monday through Friday, and 9 AM to 5 PM on Saturday. No construction will be allowed on Sundays or holidays.
 - Construction equipment noise will be minimized during Project construction and decommissioning by muffling and shielding intakes and exhaust.

Natural Resource Conservation

The Project will support natural resource conservation by reducing the demand on fossil fuels for energy production, with the associated improvements to air quality. The Project is anticipated to produce approximately 15.1 GWh of zero-carbon electricity in the first year of operation, equivalent to the annual energy consumption of approximately 1,882 households. In addition, clean technologies such as solar energy require no water for electricity production, whereas fossil fuel-fired generation is typically water intensive.

No Action Alternative

The no action alternative to the development of renewable energy sources would result in greater demand for conventional fossil fuel-based energy production, further depleting natural resources for the purposes of meeting an ever-growing demand for energy, as well as a lost opportunity to generate emission-free energy, such as that derived from solar energy.

Additionally, the Project will help meet California's RPS requirements and comply with GHG emission legislation, while satisfying increased demand for electricity. Should the Project not be implemented, the mix of renewables in IID's portfolio would be delayed and the intent of California's GHG emission reduction goals could be affected.

Existing Conditions and Project Impact – Health

In general, epidemiological research has shown that both chronic and acute exposure to harmful emissions associated with fossil fuel-based energy production can lead to serious respiratory problems. It is estimated that, at the very least, prolonged exposure to excessive levels of pollutants can deteriorate the respiratory capacity of humans and greatly contribute to the increased incidence of cardiopulmonary diseases, such as asthma, heart ailments and lung cancer.

By using clean renewable resources instead of conventional fossil fuel sources in power generation, the Project will positively impact the region by reducing pollutants and thus help to contain the severity of respiratory and other diseases aggravated or caused by air pollution. In addition, the reduction of GHG emissions is expected to mitigate climate effects that create more vulnerable conditions for human health.

Transboundary Effects

No negative transboundary impacts are anticipated as a result of the implementation of the Project; on the contrary, a beneficial effect is anticipated on the air quality due to the decreased demand on fossil-fuel-fired electrical plants in the region. Furthermore, the Project will aid in addressing the larger environmental concerns related to greenhouse gases and global warming targeted by international agendas.

Other Local Benefits

During construction, the Project is expected to generate approximately 60 jobs. During operation, three part-time jobs are expected to be created.

2.3. FINANCIAL CRITERIA

The Project Sponsor has requested a loan from the North American Development Bank (NADB) to complete the financing of the Project. The proposed payment mechanism is consistent with the project structure normally seen in the U.S. renewable energy industry. The source of payment will be the revenue generated by the Project in accordance with the pricing established under the Power Purchase Agreements (PPAs) signed with IID for a term of 20 years. NADB loan will have no recourse beyond the Project Company, SEPV Imperial, LLC ("SEPV").

NADB performed a financial analysis of the source of payment, IID; the proposed payment structure; and the Project's cash flow projections over the 20-year term of the PPA. IID's financial ratios support its favorable credit ratings. IID's most recent bond issuances have been rated "A+" by Fitch with stable outlooks, reflecting a good credit quality.

The Project's expected revenue from the sale of electricity is estimated to be sufficient to: a) cover scheduled O&M expenses, b) fund any debt service reserve, c) pay the debt service on the senior loan, and d) comply with debt service coverage requirements.

In addition, NADB's analysis verified that SEPV Imperial, LLC has the legal authority to contract financing and pledge its revenue for the payment of financial obligations. SEPV Imperial, LLC also has the legal and financial capacity to operate and maintain the Project, and will contract the Project's O&M services with a firm with ample experience and expertise in these types of projects. NADB has verified that the projected O&M costs are in accordance with industry standards.

Considering the Project's characteristics and based on the financial and risk analyses performed, the proposed Project is considered to be financially feasible and presents an acceptable level of risk. Therefore, NADB proposes providing a market-rate loan for up to US\$11 million to SEPV Imperial, LLC for the construction of the Project described herein.

3. PUBLIC ACCESS TO INFORMATION

3.1. PUBLIC CONSULTATION

BECC released the draft project certification and financing proposal for a 30-day public comment period beginning November 18, 2015. The following documentation is available upon request:

- Initial Study
- Final Environmental Impact Report approved by the Imperial County Board of Supervisors on January 11, 2016
- Notice of Determination SCH# 2015101043
- Conditional Use Permit for SEPV Dixieland West, approved by the Imperial County Board of Supervisors on January 11, 2016
- Conditional Use Permit for SEPV Dixieland East, approved by the Imperial County Board of Supervisors on January 11, 2016

The public comment period ended on December 18, 2015, with no comments received.

3.2. OUTREACH ACTIVITIES

In accordance with CEQA provisions, the ICPDS reviewed the Project information, and on May 15, 2015, distributed a Notice of Preparation (NOP) of the EIR for the Project to state and federal agencies, other public agencies, stakeholders, organizations and individuals in order to provide an opportunity for input on the scope of the EIR during a period of 30 days. The NOP was also published in the *Imperial Valley Press* on May 16, 2015. Comments to the NOP were received from IID and the Imperial County Air Pollution Control District (ICAPCD). IID comments provided guidelines for interconnection specifications, water use and the storm water management plan. Comments from ICAPCD were related to the preparation of an air quality analysis. These comments were taken into consideration during the development of the draft EIR.

As part of the draft EIR, the Sponsor conducted several studies, including analyses of biological and cultural resources. Activities related to development of the cultural resources report included a direct consultation with relevant agencies, such as the NAHC and the Natural History Museum of Los Angeles County (NHMLAC). The consultation with the NAHC did not result in the identification of any cultural resources in the immediate Project sites. A list of Native American groups provided by the NAHC were also contacted by letter to further investigate whether they had knowledge of cultural resources occurring in the Project sites. Comments received from the La Posta Band of Mission Indians were related to clarifying jurisdiction of the land where the Project will be installed, specifying whether federal funding or tax incentives will be utilized, sharing available information on cultural resources, requesting site visits and consulting with the builder to ensure cultural preservation during construction. Through the consultation with NHMLAC, the Sponsor was informed that no vertebrate fossil resources occur within the Project sites. However, NHMLAC recommended that ground disturbing activities be monitored in order to collect any remains that might be uncovered and to determine the potential of more fossils at the sites. Necessary mitigation measures are included in section *Mitigation of Risks*.

The final EIR included appropriate information in response to the comments received. The County issued a Notice of Availability of the draft EIR for the Project for a public review period from September 22, 2015 through November 11, 2015. No additional comments were received.

Finally, BECC conducted a media search on the internet to identify public opinions about the Project. Some references of meetings related to feed-in tariffs were found on the IID website:

- Energy Consumers Advisory Committee, Agenda report, April 6, 2015, http://imperialid.granicus.com/MetaViewer.php?view_id=3&clip_id=104&meta_id=9674
- Board Agenda Memorandum, Feed-in Tariff Power Purchase Agreement, May 12, 2015, http://imperialid.granicus.com/MetaViewer.php?view_id=3&clip_id=108&meta_id=10170

No specific comments of concern or support in relation to the Project were found. Due to the required environmental clearance process, an extensive effort has been made to provide public access to information related to the Project, and full consideration of public comments received during the environmental review process will be incorporated into the Final EIR and County

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authorizations. The Project Sponsor has followed all public consultation requirements in order to comply with applicable environmental clearance and permitting processes and is committed to responding to all provisions as established by the County, in a timely manner, to obtain all necessary permits.

Based on the information reviewed, including public comments and the media search, no opposition to the Project was detected.